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PSINET Inc.
April 23, 1997

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Federal Communications Commission
Office of Secretary

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Access Charge Reform	)	CC Docket No. 96-262
	)	
Price Cap Performance Review for Local Exchange Carriers	)	CC Docket No. 94-1
	)	
Transport Rate Structure and Pricing	)	CC Docket No. 92-213
	)	
Usage of the Public Switched Network by Information Service and Internet Access Providers	)	CC Docket No. 96-263

Reply Comments of PSINet

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Introduction and Summary

PSINet Inc., by its attorneys, hereby replies to the comments filed in response to the Notice of Inquiry[1] ("NOI") in the above-captioned dockets.[2] In this proceeding, some incumbent local exchange carriers ("ILECs") have asked the Commission to allow them to levy access charges on Internet Service Providers ("ISPs") in order to alleviate "network congestion" and to build a better data network. PSINet believes that incumbent ILECs should build better data networks and, indeed, they should alleviate congestion on their networks as it arises. Implementation of an additional access charge on ISPs, however, is not a feasible or market-

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1 Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry, CC Dkt. Nos. 96-262, 94-1, 91-213, 96-263 (rel. Dec. 24, 1996).

2 PSINet is a founding member of the Commercial Internet eXchange Association ("CIX") and it concurs with the CIX comments and reply comments filed in this proceeding.

oriented way to achieve those goals. Additional access charges are not feasible because the risks of harm to the burgeoning Internet services market -- such as economic dislocation of competing providers, RBOC control of the market, and stifling government regulation -- outweigh the assertions of PSTN congestion problems. Moreover, an access charge today that is designed to control the future access decisions of over 3,000 independent ISPs (if and when incumbent LECs build their fabled "data networks") would be anticompetitive and regulatory folly.

Incumbent LECs should build the "data networks" if they believe that such networks will be profitable for them. However, they should not seek a regulatory change that burdens a class of PSTN users on an interim basis in order to *ensure* a demand for their product when their data-oriented solutions are ready. This is simply contrary to the goals for market-oriented local services. Further, the ISP market is both complex and highly competitive, and so it is questionable that additional access charges are either necessary or appropriate to move ISPs toward a data network. Given the level of ISP dissatisfaction with the incumbent LEC services and the competitiveness of the current ISP market, Internet service providers are undoubtedly eager to find feasible data services and networks that deliver better Internet services to their customers.

For these reasons, PSINet respectfully submits that the Commission should terminate this proceeding and allow the data access market to operate free of regulatory intrusion.

Discussion

PSINet believes that the Commission should end the regulatory uncertainty over ISPs and access charges by terminating this NOI proceeding and continuing the discussions between ILEC and ISP representatives. The evidence presented in this proceeding does not warrant further action. Instead, some incumbent LECs have attempted to link together the imposition of

additional interstate ISP access charges[3] with their assertions of network congestion and the obvious public interest in promoting a market-based data network. As discussed below, PSINet believes that there is no compelling or even logical connection between ISP access charges, network congestion solutions, and the development of a more ubiquitous data network. Moreover, as further discussed below, the risk of harm to the Internet industry resulting from precipitous government intervention is too great.

I. PSTN Congestion and Promises of Efficient Incumbent LEC Data Networks

Incumbent LECs claim that an additional ISP access charge is justified for two reasons: (a) to pay for incumbent LEC improvements that overcome "network congestion" on the PSTN due to Internet traffic; and (b) to encourage ISPs to adopt more efficient pack-switched networks or access arrangements once the incumbent LEC can provision them. Neither justification is consistent with the Commission's primary reliance on market forces, instead of regulatory interference, to resolve local access issues.

A. Additional Access Charges Are Not Required to Resolve Network Congestion

The incumbent LECs broadly allege network congestion at every conceivable point along their network from the customer to the ISP, namely: (a) the ILEC switch serving the customer, (b) the ILEC switch serving the ISP office; and (c) the interoffice trunking and tandem switches, which are sometimes used to connect the two ILEC switches. According to the ILECs, access charges on the traffic from the ILEC switch to the ISP office are necessary in order to improve these three "over burdened" components of the network. PSINet submits that the claims of network congestion are overstated and that there is no economic necessity for such access charges.

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3 PSINet notes that ISPs purchasing LEC access lines already pay for interstate access through the subscriber line charge.

1. ILEC Technical Claims

As to the technical claims of network congestion, it is hard to follow why the incumbent ILECs cannot resolve these matters without resort to a sweeping change in federal law. Internet traffic at the ILEC switch serving the customer has not been shown to cause network congestion or to require switch improvements. For example, the Bellcore Study submitted by Bell Atlantic/NYNEX shows that a majority of customer Internet calls (over 60%) have hold-times of *less than* 8 1/3 minutes (with an average hold-time of approximately 2 1/2 minutes),[4] while NYNEX asserts that the average hold-time for voice callers varies from 5 to 10 minutes.[5] Moreover, it is no great surprise that some customers, including voice customers, use the local switch more than others.[6] Significantly, the litany of incumbent ILEC switch congestion allegations is very short of cases where customer on-line usage has caused strain on the ILEC switch requiring equipment improvements.[7] Even Pacific Bell concedes that Internet traffic at the switch serving the customer "is not yet a major problem."[8] Assertions of congestion in interoffice trunking and tandem switches are largely a result of the incumbent LECs' own network configuration decisions. Moreover, with incumbent LECs actively promoting and

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4 Joint Comments of Bell Atlantic and NYNEX, Attachment A ("Analysis of Internet Traffic: Flat Rate Vs. Usage Sensitive Pricing") at 7.

5 *Id.* at Attachment D (Letter from Kenneth Rust, NYNEX to James Schlichting, FCC at 2 (July 10, 1996)). See also Comments of USTA at 16 (residential and business subscriber lines generate an "average load of about five to ten minutes per hour").

6 According to Bell Atlantic/NYNEX, pizza delivery businesses can generate significant switched voice traffic. Joint Comments of Bell Atlantic and NYNEX at 5, n. 11. Despite this, the LECs have not yet called for a special pizza access charge.

7 Cf., Comments of Pacific Telesis Group, Exhibit A at 11-14 (list of three examples of switch congestion does not include example of customer-generated congestion).

8 *Id.* at 10.

selling additional access lines both for Internet access and voice access, they should have anticipated and planned for an increase in interoffice traffic.

Allegations of "network congestion" focus primarily on the ILEC switch that serves the ISP POP. Once again, it is apparent that technical solutions could resolve alleged congestion crises, to the extent they exist, without resort to federal access charges. For example, PSINet connects to ILEC switches using trunk side PRI ISDN across T1 circuits. As Bell Atlantic/NYNEX point out, "[m]ore ISPs are beginning to understand the value of trunk side connections to their grade of service. As a result, demand for trunk side connections in the Bell Atlantic region now exceeds the demand for line side connections."[9] Because trunk side connections "are non-blocking in the final switch," the increasing demand for trunk side connections relative to line side connections should alleviate future switch congestion. More rational ILEC pricing of trunk side connections would further reduce such congestion.

In general, the issue of congestion at the ILEC switch serving the ISP is best resolved by vesting the ISP with legal rights to the network elements it needs, such as access to unbundled trunk side connections, and then allowing the ILEC and ISPs to negotiate a mutually consented arrangement.[10] Because the ILEC is also a monopoly provider of access, the Commission should retain ISP access to business lines by maintaining the ISP's status as an end-user in the

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9 Joint Comments of Bell Atlantic and NYNEX, Attachment B at 4.

10 The Commission has indicated that it will soon issue a further notice in conjunction with the California III Further Remand proceedings to examine the effect of the 1996 Act interconnection and unbundling requirements vis-a-vis the Computer II, Computer III, and ONA access rules for information service providers. Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act, as Amended, First Report and Order and Further Notice of Proposed Rulemaking, CC Dkt. No. 96-149, FCC 96-489, at ¶¶ 133-34 (rel. Dec. 24, 1996), *appeal pending, sub nom.*, Bell Atlantic v. FCC, No. 97-1067 (D.C. Cir.).

access charge regime. In this way, the ILEC will not be able to use its market advantage to cripple ISPs that it directly competes against in the Internet market.

Moreover, we note that the ILEC-to-ISP switch congestion issue can also be resolved through CLEC connection with the ISP. Under such an arrangement, the CLEC and ILEC terminate and transport each other's traffic through a Section 251/252 interconnection arrangement on terms that provide for mutual and reciprocal compensation. The CLEC switch then serves the ISP, avoiding ILEC congestion at the terminating switch. At the meet-point between the two telecommunications carriers, the ILEC cannot legitimately claim that there exists a switch congestion issue.[11] Equally important, the ISP is able to offer competitive services to customers who rely on PSTN access but the ISP itself has a choice to use ILEC access or CLEC access, which may be more attractive in terms of price, reliability, or capacity. Unfortunately, the ILECs also object to this alternative, even when more efficient Internet access can be obtained through connection "to a single CLEC switch serving an entire region . . . to provide access from a single point that covers multiple local calling areas."[12] While Pacific Bell claims, without explanation, that this more efficient routing would strain its tandem switches, it is clear that Pacific Bell's real concern is that this arrangement is a "means to avoid the use of access services for interexchange access." *Id.* at 24. The Commission's First Order on Interconnection, however, permits and even encourages CLECs to serve large end users like

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11 With the ability to negotiate interconnection points, and to distribute traffic, it is always possible for ILECs and CLECs to negotiate an interconnection agreement on terms that do not put a strain on the ILEC's tandem switches.

12 Comments of Pacific Telesis Group at 21-22; see also Comments of USTA at 21-22.

ISPs; in accordance with Section 252, the incumbent LEC is compensated for interconnection on a "just and reasonable" basis.[13]

None of these solutions to ILEC-to-ISP switch congestion involve additional ISP access charges.[14] In fact, it is doubtful that access charges would resolve ILEC-to-ISP switch congestion at all. The volume of traffic on an ILEC-to-ISP business line is the product of two factors: (1) the average on-line time per customer, *and* (2) the concentration of ISP customers relative to the number of business lines. Any regulatory effort to control indirectly customer on-line time by changing the ISP's business line costs is unlikely to have the intended result of reducing aggregate Internet traffic through the ILEC switches. Rather, raising the ISP's cost of access is more likely to cause the ISP to abandon less profitable service areas, while maintaining services in areas of strong, inelastic demand.[15] Thus, additional access charges on ISPs would raise the cost of Internet service to the customer and would drive ISPs out of less profitable markets (i.e., rural areas). Note, however, that access charges would not achieve the incumbent LECs' asserted goal of reducing switch congestion in areas currently experiencing high Internet demand, because the ISP would run the same level of Internet traffic or more through the nearest ILEC switch.

2. ILEC Economic Claims

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13 Implementation for Local Competition Provisions of the Telecommunications Act of 1996, First Report and Order, CC Dkt. No. 96-98, 11 FCC Rcd. 15499, ¶¶ 1034-35 (1996), *appeal pending, sub nom.*, Iowa Util. Bd. v. FCC, (8th Cir.). The LECs cannot legitimately claim that, from the perspective of the voice telephony network, dial-up access is anything but a local telephone call.

14 See also, "Ameritech to Buy Lucent's Internet Congestion Product," Telecommunications Reports, at 10 (Mar. 24, 1997) (Ameritech purchases 500 of Lucent's Access Interface Units for central offices to resolve Internet congestion issues).

15 Without an industry-wide pricing change, an ISP is not likely to move from flat-rate pricing to metered pricing and risk a loss of customers.

Beyond a technical resolution of network congestion, the incumbent LECs' *economic* claims are elusive. The incumbent LECs have largely failed to respond to the Commission's specific request for "revenues attributable to ESP traffic (including second phone line revenue)."[16] While the ILECs vaguely claim that second lines sold to ISPs and ISP customers are a net loss because no vertical features or toll calling are associated with those lines, they offer no analysis factoring in ISDN or other ILEC services purchased by ISPs and their customers. Nor do the ILECs explain the methodologies used to derive their aggregate revenue and cost data. Contrary to the aggregate data presented by the ILECs, it is well-known that "[m]any homes are wired to support at least two lines without any additional infrastructure, so second lines often cost ILECs little to install and generate very high profit margins."[17] Therefore, the ILECs' claims of enormous costs, without offsetting revenues, remain unsubstantiated. Pacific Bell's own presentation of second line economics demonstrates that annual net revenues exceed annual costs within four years, and that growth accelerates in subsequent years (unfortunately, Pacific Bell's presentation ends in the second year of positive revenues).[18] In addition, the incumbent LECs do not explain why they actively promote second line sales for Internet users if, as they claim to the Commission, such lines are a net loss.[19]

Finally, the costs for network and equipment investments that the ILECs assert are caused by Internet users may well be a result of the ILECs' own failure to re-invest in their network. As the Pennsylvania ISP Association demonstrated, from 1990 to 1994 regulated carrier "plant is

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16 NOI at ¶ 315.

17 FCC OPP Working Paper Series 29, "Digital Tornado: The Internet and Telecommunications Policy," at 64 (Mar., 1997) ("Digital Tornado").

18 Comments of Pacific Telesis Group, Exhibit A at 17.

19 Digital Tornado at n.141; Reply Comments of PSINet at Exhibit 2 (Feb. 14, 1997) (PacTel and Bell Atlantic promotions of second lines for Internet usage).

aging and is not being replaced," while "LECs' revenues for local service increased by more than 19%."[20] Likewise, PSINet has offered evidence showing the ILECs enormous accrued reserves of profits and revenues. While the ILECs claim that ISPs are the "cost causers" of network congestion, it appears that the ILECs themselves have merely failed to maintain and reinvest in the PSTN.

B. Building An Efficient Data Network Has Nothing To Do With Access Charges

The incumbent LECs' second argument for additional ISP access charges is that they will wean ISPs off the PSTN and onto existing ILEC packet switched offerings and/or future data networks. PSINet believes that this view reflects an ignorance of the highly competitive ISP market, and could result in a serious misallocation of resources. In the final analysis, ILECs should build data networks and provision packet-switched services for ISPs like any other communications business -- invest in the network (without demand fomented by regulatory shifts), provision the product to meet the customer demand, and service the customer. If the ILECs do not believe that they can build such a product or network, they should not do it -- other local providers will.

As an initial matter, PSINet believes that some ISPs will readily purchase packet-switched services offered by ILECs if those services are provisioned to meet the needs of independent ISPs. If, as some ILECs claim, ISPs do not purchase significant amounts of the current ILEC digital and packet switched services, it is because such services represent poor technical solutions, are poorly provisioned, and are priced at inflated levels.[21] Contrary to the

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20 Comments of Pennsylvania Internet Service Providers at 12 (providing analysis of common carrier revenues and network investments based on 1995/1996 FCC Common Carrier Statistics).

21 Internet Access Coalition Comments at 23 ("it has taken more than 20 years for GTE and most of the BOCs to make switched ISDN available").

ILECs' assertions, ISPs have every incentive to purchase useful and efficient ILEC digital and packet-switched services.

The record demonstrates that ISPs have encountered significant problems and delays in obtaining ILEC services.[22] While efficient and reliable digital or packet-switched services would improve an ISP's competitive position, the ILECs do not currently offer such services. For example, as explained by the Pennsylvania Internet Service Providers, use of Bell Atlantic's Internet Protocol Routing Service ("IPRS") poses several competitive and technical problems for independent ISPs.[23] In order to use IPRS, an ISP must provide its customer lists and customer passwords to the ILEC.[24] Further, when ISPs inquired about purchasing IPRS, they were told that it was "not designed for them and was not available to them."[25] Bypass technologies such as xDSL are simply not yet widely deployed, and so not feasible for ISP use.[26] Even those ISPs who were provided access to such services discovered that they were substantially over-priced.[27] As MCI noted, "there is no evidence that the incumbent LECs are pricing their packet access services to reflect the efficiency gains that packet technologies offer."[28]

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22 See e.g., *id.* at 5-6 (claiming installation delays); Comments of CIX at 7 (indicating that ISPs reported considerable problems with ILEC services including, installation delays, repair delays, and interruption of service); Comments of the Internet Access Coalition at 24 (noting that "service use has been frustrated by the ILEC's complex service-ordering process).

23 Comments of the Pennsylvania Internet Service Providers at 5.

24 *Id.*

25 *Id.*

26 Comments of CIX at 14. See also Comments of Pacific Telesis Group at 37 (stating that xDSL access technology "is being developed" and will be deployed "pending successful results of technology testing and regulatory approvals . . . .").

27 See Comments of MCI at 10.

28 *Id.*

Given this past performance, PSINet is skeptical that the incumbent LECs are fully committed to offer packet-switched solutions to independent ISPs in the near future,[29] and is even more wary of promises for longer-term incumbent LEC data networks.[30] It is inconceivable that ISPs and the American consumer should be asked to pay additional ILEC charges today so that the ILECs, when and if their packet-switched services are provisioned, will have the ISP industry -- stinging from access charges -- as a guaranteed market. The competitive market just does not operate this way, and the Commission should not expect it to.

The ILECs argue that ISPs will not purchase packet-switched services in an efficient manner because of the subsidy the ISP receives from purchase of analog business lines. However, this argument is flawed for two reasons. First, as discussed above, the ILECs have failed to demonstrate the existence of a subsidy. ISPs contribute to the PSTN through flat rate monthly charges, the purchase of vertical services, and the promotion of customer second line sales; IXCs do not contribute to the PSTN in this way.[31] Second, it fails to take the highly competitive ISP market into account, where market forces demand that ISPs obtain the highest access reliability and bandwidth at the lowest price. Packet-switched services that offer higher bandwidth and reliability, and that are priced reasonably, will translate into additional customer demand for the ISP's services. In the highly competitive ISP market, therefore, such services will be purchased as customers demand greater bandwidth and reliability. Indeed, the ISP that does not take advantage of such access solutions would do so at its peril.

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29 See also Digital Tornado at 83 ("incumbent LECs have huge investments in their existing circuit-switched networks, and thus may be reluctant, absent competitive pressure, to explore alternative technologies that involve migrating traffic off those networks").

30 See, e.g., Comments of BellSouth at 5.

31 Moreover, the legal rights obtained under ISP access differ significantly from IXC access. As "telecommunications" providers, IXCs obtain additional rights (e.g., collocation, network unbundling) that ISPs do not purchase through end-user access.

Additional access charges, however, could well result in overpriced PSTN access.[32] As long as ISPs have no competitive local access alternative to the incumbent LEC, ISP access charges are likely to raise prices and reduce demand for Internet services, as well as tilt the ISP market in the ILEC's favor. Of equal concern is that such access charges would send an economic signal for ISPs to move onto the quickest available packet-switched service. This would result in a misallocation of resources toward the first-generation of packet-switched alternatives.

II. Internet Access Charges Carry Significant Risk of Harm

As discussed above, an ISP access charge would not alleviate network congestion and would not have a positive impact on the introduction of future data-friendly access services. An ISP access charge will, however, involve the Commission in areas where its jurisdiction is questionable. In addition, access charges would impact independent ISPs more severely than ILEC-affiliated ISPs to the detriment of competition and service offerings in the ISP market.

The Commission's jurisdiction over "information service"[33] providers, such as ISPs, is tenuous. The 1996 Act clarifies that the Commission's authority to apply common carrier regulation is limited: " [a] telecommunications carrier shall be treated as a common carrier under this Act only to the extent that it is engaged in providing telecommunications services."[34] Thus, the 1996 Act apparently resolves the issue against an exercise of Commission authority that would treat "information" or "enhanced" service providers as if they were interexchange

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32 LECs presumably want ISPs to pay more than IXCs by paying the current business line charges in addition to the IXC access charges. Even if ISPs were to obtain access through a single interconnection point at each LATA, the lack of rights to collocation or expanded interconnection would result in ISPs paying more for access than IXCs.

33 47 U.S.C. § 153(20).

34 *Id.* at § 153(44).

telecommunications carriers.[35] Because ISPs are non-common carrier end users, Section 202(a) of the Communications Act would prohibit "unjust and unreasonable" rate discrimination as between ISPs and other large business users of the local exchange.[36]

Moreover, federal ISP access charges would likely be followed by further common carrier regulation of the Internet. For example, Pacific Bell favors access charges and a panoply of federal regulations to implement those charges, including: federal ISP registration; restrictions on ISP/CLEC advertising or promotions; or, regulations for separate treatment of ISP calls for local interconnection purposes.[37] PSINet urges the Commission to abstain from even the first step toward the morass of Internet regulation.

Ultimately, new federal regulation would produce a significant negative impact on the deregulated Internet access market. While the current market is teeming with small and large providers, the vast majority of small business ISPs with very low profit margins cannot afford additional costs of regulatory compliance. More importantly, access charges would raise the costs for independent ISPs to compete against the ILEC-affiliated ISPs, thus driving out

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35 PSINet recognizes that the Commission has explained in the Computer III proceedings that it had jurisdiction over some, but not all, enhanced service providers. For example, Section 271(g) provides the Commission with continuing authority to regulate RBOC entry into the information services market. However, the limits of the Commission's jurisdiction as to competitive information service providers have been trimmed by the Section 153(20) limitation and by the Congressional policy to "preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation." 47 U.S.C. § 230(b)(2).

36 See Comments of CAIS, Inc. at 5.

37 Comments of Pacific Telesis Group at 23-24; see also, Comments of ACTA (FCC should impose identical regulatory burdens on ISPs as are required of IXCs).

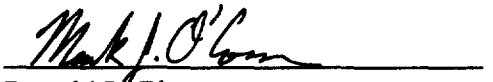
competition[38] and reducing the variety of Internet services offered to the public.[39] While the Internet industry may well be headed for a market-driven consolidation, the impact of a significant regulatory shift that raises the cost of access to customers or that initiates common carrier regulation would be a devastating intrusion on the operation of the market.

Conclusion

PSINet urges the Commission to end the regulatory uncertainty that ISPs may have to pay IXC access charges, and terminate this proceeding.

Respectfully submitted,

PSINet Inc.



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38 Pacific Bell even proposes to provision data transport services on a contract tariff basis, which would favor large providers and its own affiliate. Comments of Pacific Telesis Group at 7.

39 Digital Tornado, at xiii ("The absence of competition in the Internet service providers market, or the telecommunications infrastructure market, could reduce incentives for innovation. Excessive or misguided government intervention could distort the operation of the marketplace, and lead companies to expend valuable resources manipulating the regulatory process.").